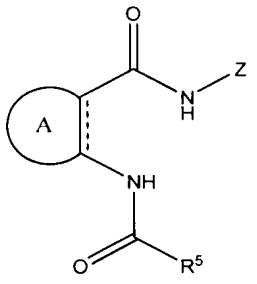
AMENDMENTS TO THE CLAIMS

Claims 1 - 49 (Canceled):

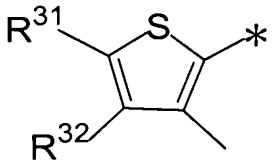
Claim 50 (Currently Amended). A compound represented by formula (I-1), or a pharmaceutically acceptable salt thereof:



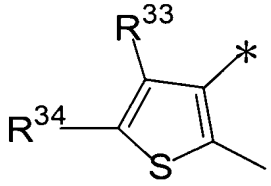
(I -1)

wherein

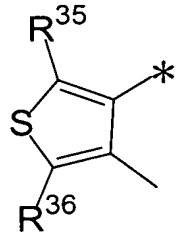
A represents a five- to nine-membered unsaturated heterocyclic moiety selected from the group consisting of formula (IIb), formula (IIc), and formula (IId):



(IIb)



(IIc)



(IId)

wherein in formula (IIb)

R^{31} and R^{32}, which may be the same or different, represent a hydrogen atom; a halogen atom; or C_{1-6} alkyl in which the alkyl group is optionally substituted by (1) hydroxyl, (2) thiol, (3) amino, (4) C_{1-6} alkoxy, (5) C_{1-6} alkylthio, (6) C_{1-6} alkylsulfonyl, (7) mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, (8) aryloxy, (9) arylthio, (10) arylsulfonyl, (11) aryl, (12) a heterocyclic group, (13) a halogen atom, or (14) arylamino in which the amino group is optionally substituted by C_{1-6} alkyl, and the aryl group is optionally substituted by a halogen, C_{1-6} alkyl, C_{1-6} alkoxy, or C_{1-6} alkylamino; or C_{2-6} alkenyl,

when R^{31} and R^{32} represent C_{1-6} alkyl or C_{2-6} alkenyl, the alkyl or the alkenyl groups together with the carbon atoms to which they are respectively attached may form an unsaturated five- to seven-membered carbocyclic ring,

wherein in formula (IIc)

R^{33} and R^{34}, which may be the same or different, represent a hydrogen atom; a halogen atom; or C_{1-6} alkyl in which the alkyl group is optionally substituted by (1) hydroxyl, (2) thiol, (3) amino, (4) C_{1-6} alkoxy, (5) C_{1-6} alkylthio, (6) C_{1-6} alkylsulfonyl, (7) mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, (8) aryloxy, (9) arylthio, (10) arylsulfonyl, (11) aryl, (12) a heterocyclic group, (13) a halogen atom, or (14) arylamino in which the amino group is optionally substituted by C_{1-6} alkyl, and the aryl group is optionally substituted by a halogen, C_{1-6} alkyl, C_{1-6} alkoxy, or C_{1-6} alkylamino; or C_{2-6} alkenyl,

when R^{33} and R^{34} represent C_{1-6} alkyl or C_{2-6} alkenyl, the alkyl or the alkenyl groups together with the carbon atoms to which they are respectively attached may form an unsaturated five- to seven-membered carbocyclic ring,

wherein in formula (IId)

R^{35} and R^{36}, which may be the same or different, represent a hydrogen atom; a halogen atom; or C_{1-6} alkyl in which the alkyl group is optionally substituted by (1) hydroxyl, (2) thiol, (3) amino, (4) C_{1-6} alkoxy, (5) C_{1-6} alkylthio, (6) C_{1-6} alkylsulfonyl, (7) mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, ~~(8) aryloxy,~~ (9) arylthio, (10) arylsulfonyl, (11) aryl, (12) a heterocyclic group, (13) a halogen atom, or (14) arylamino in which the amino group is optionally substituted by C_{1-6} alkyl, and the aryl group is optionally substituted by a halogen, C_{1-6} alkyl, C_{1-6} alkoxy, or C_{1-6} alkylamino; or C_{2-6} alkenyl, and

wherein in formula (IIb), formula (IIc), and formula (IId) * represents a bond to -C(=O)-NH(-Z)

⎓ represents a single bond or a double bond,

R^5 represents C_{1-6} alkyl, aryl, C_{1-6} alkoxy, aryloxy, C_{1-6} alkylamino, arylamino, C_{1-6} alkylthio, arylthio, C_{3-7} cycloalkyl, or a heterocyclic group, and the C_{1-6} alkyl, the aryl, the C_{1-6} alkoxy, the aryloxy C_{1-6} the alkylamino, the arylamino, the C_{1-6} alkylthio, the arylthio, the C_{3-7} cycloalkyl, or the heterocyclic group represented by R^5 is optionally substituted by

(I) a halogen atom;

(II) C_{1-6} alkyl optionally containing a substituent selected from the group consisting of (1) hydroxyl, (2) thiol, (3) amino, (4) C_{1-6} alkoxy, (5) C_{1-6} alkylthio, (6) C_{1-6} alkylsulfinyl, (7)

C_{1-6} alkylsulfonyl, (8) mono- or di C_{1-6} alkylamino, (8') amino substituted by a heterocyclic group optionally substituted by C_{1-6} alkyl, (9) C_{1-6} alkylcarbonyloxy, (10) C_{1-6} alkylcarbonylthio, (11) C_{1-6} alkylcarbonylamino, (12) aryloxy, (13) arylthio, (14) arylsulfinyl, (15) arylsulfonyl, (16) arylamino, (17) C_{1-6} alkyl- or aryl-sulfonylamino, (18) C_{1-6} alkyl- or aryl-ureido, (19) C_{1-6} alkoxy- or aryloxy-carbonylamino, (20) C_{1-5} alkylamino- or arylaminocarbonyloxy, (21) carboxyl, (22) nitro, (23) a heterocyclic group, (23') Het-S(=O)j wherein the Het represents a heterocyclic group, j is 0, 1, or 2, and the Het is optionally substituted by alkyl optionally substituted by mono- or di- C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl, (24) cyano, and (25) a halogen atom, wherein the alkyl moiety in (4) the C_{1-6} alkoxy group, (5) the C_{1-6} alkylthio group, (6) the C_{1-6} alkylsulfinyl group, and (7) the C_{1-6} alkylsulfonyl group is optionally substituted by a halogen atom; C_{1-6} alkyl; C_{1-6} alkoxy; C_{1-6} alkylthio; mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms; aryloxy; arylthio; hydroxyl; carboxyl; -S(=O)$_2$(-OH); C_{1-6} alkoxy- or aryloxy-carbonyl; C_{1-6} alkylcarbonyl; aryl; or a heterocyclic group optionally substituted by alkyl optionally substituted by mono- or di- C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxy, and

in (8) the mono- or di-C_{1-6} alkylamino group, the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by a halogen atom; C_{1-6} alkyl optionally substituted by hydroxyl, a halogen atom, aryl optionally substituted by a

halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, or a heterocyclic group optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, and, when one or two alkyl groups on the amino group and the cyclic amino moiety are substituted by two C_{1-6} alkyl groups, they together may form C_{3-7} cycloalkyl; C_{1-6} alkoxy; C_{1-6} alkylthio; mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; arylamino in which the amino group is optionally substituted by C_{1-6} alkyl; mono- or di-C_{1-6} alkylcarbamoyimethyl in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; aryloxy; arylthio; an oxygen atom (=O); hydroxyl; carboxyl; C_{1-6} alkoxy- or aryloxy-carbonyl; C_{1-6} alkylcarbonyl; aryl optionally substituted by a halogen atom or hydroxyl; or a heterocyclic group, and, when one carbon atom in the cyclic amino moiety is substituted by two C_{1-6} alkoxy groups which may be the same or different, the two alkoxy groups together may form group -O-$(CH_2)_p$-O- wherein p is an integer of 2 to 4, and the cyclic amino group may condense with a monocyclic or bicyclic aromatic carbocyclic ring or a monocyclic or bicyclic aromatic heterocyclic ring to represent a bicyclic or tricyclic heterocyclic group;

(III) C_{1-6} alkoxy optionally substituted by a halogen atom;

(IV) C_{1-6} alkylthio optionally substituted by a halogen atom;

(V) C_{3-7} cycloalkyl;

(VI) aryl;

(VII) aryloxy;

(VIII) C_{1-6} alkylcarbonylamino;

(VIX) C_{1-6} alkylcarbonyloxy;

(X) hydroxyl;

(XI) nitro;

(XII) cyano;

(XIII) amino;

(XIV) mono or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms;

(XV) arylamino;

(XVI) C_{1-6} alkyl- or aryl-sulfonylamino;

(XVII) C_{1-6} alkyl- or aryl-ureido;

(XVIII) C_{1-6} alkoxy- or aryloxy-carbonylamino;

(XIX) C_{1-6} alkylamino- or arylamino-carbonyloxy;

(XX) C_{1-6} alkoxy- or aryloxy-carbonyl;

(XXI) acyl;

(XXII) carboxyl;

(XXIII) carbamoyl;

(XXIV) mono- or di-alkylcarbamoyl;

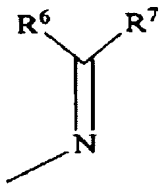
(XXV) a heterocyclic group;

(XXVI) alkyl- or aryl-sulfonyl;

(XXVII) C_{2-6} alkenyloxy group; or

(XXVIII) C_{2-6} alkenyloxy,

Z represents group (A):



(A)

wherein

R^6 and R^7, which may be the same or different, represent a hydrogen atom, C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkenyl, aryl, aryl C_{1-6} alkyl, aryl C_{2-6} alkenyl, or a heterocyclic group, and the C_{1-6} alkyl, the aryl, the aryl C_{1-6} alkyl, the aryl C_{2-6} alkenyl, and the heterocyclic groups, which may be the same or different, are optionally substituted by.

(I) a halogen atom;

(II) C_{1-6} alkyl optionally having one or more substituents selected from a group consisting of(1) hydroxyl, (2) thiol, (3) amino, (4) C_{1-6} alkoxy, (5) C_{1-6} alkylthio optionally substituted by hydroxyl, (6) C_{1-6} alkylsulfinyl, (7) C_{1-6} alkylsulfonyl, (8) mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, (9) C_{1-6} alkylcarbonyloxy, (10) C_{1-6} alkylcarbonylthio, (11) C_{1-6} alkylcarbonylamino, (12) aryloxy, (13) arylthio, (14) arylsulfinyl, (15) arylsulfonyl, (16) arylamino, (17) C_{1-8} alkyl- or aryl-sulfonylamino, (18) C_{1-6} alkyl- or aryl-ureido, (19) C_{1-6} alkoxy- or aryloxy-carbonylamino, (20) C_{1-6} alkylamino- or arylamino-carbonyloxy, (21) carboxyl, (22) nitro, (23) a heterocyclic group, (23') Het-S- wherein the Het represents a heterocyclic group, (24) cyano, (25) a halogen atom, and (26) C_{1-6} alkyl- or aryl-oxycarbonyl;

(III) C_{1-6} alkoxy optionally having one or more substituents selected from the group consisting of (1) hydroxyl, (2) thiol, (3) amino, (4) C_{1-6} alkoxy, (5) C_{1-6} alkylthio optionally substituted by hydroxyl, (6) C_{1-6} alkylsulfinyl, (7) C_{1-6} alkylsulfonyl, (8) mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally

containing 1 to 3 heteroatoms, (9) C_{1-6} alkylcarbonyloxy, (10) C_{1-6} alkylcarbonylthio, (11) C_{1-6} alkylcarbonylamino, (12) aryloxy, (13) arylthio, (14) arylsulfinyl, (15) arylsulfonyl, (16) arylamino, (17) C_{1-6} alkyl- or aryl-sulfonylamino, (18) C_{1-8} alkyl- or aryl-ureido, (19) C_{1-6} alkoxy- or aryloxy-carbonylamino, (20) C_{1-6} alkylamino- or arylamino-carbonyloxy, (21) carboxyl, (22) nitro, (23) a heterocyclic group, (23') Het-S- wherein the Het represents a heterocyclic group, (24) cyano, (25) a halogen atom, and (26) C_{1-6} alkyl-or aryl-oxycarbonyl;

(IV) C_{1-6} alkylthio optionally substituted by a halogen atom;

(V) C_{3-7} cycloalkyl;

(VI) aryl;

(VII) aryloxy;

(VIII) C_{1-6} alkylcarbonylamino;

(VIX) C_{1-6} alkylcarbonyloxy;

(X) hydroxyl;

(XI) nitro;

(XII) cyano;

(XIII) amino;

(XIV) mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms;

(XV) arylamino;

(XVI) C_{1-6} alkyl- or aryl-sulfonylamino;

(XVII) C_{1-6} alkyl- or aryl-ureido;

(XVIII) C_{1-6} alkoxy- or aryloxy-carbonylamino;

(XIX) C_{1-6} alkylamino- or arylamino-carbonyloxy;

(XX) C_{1-6} alkoxy- or aryloxy-carbonyl;

(XXI) aryl;

(XXII) carboxyl;

(XXIII) carbamoyl;

(XXIV) mono- or di-alkylcarbamoyl;

(XXV) a heterocyclic group;

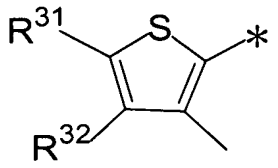
(XXVI) alkyl- or aryl-sulfonyl;

(XXVII) C_{2-6} alkenyloxy; or

(XXVIII) C_{2-6} alkynyloxy.

Claims 51 – 52 (Canceled):

Claim 53 (Previously Presented): The compound according to claim 50, wherein A represents formula (IIb):



(IIb)

wherein R^{31} and R^{32}, which may be the same or different, represent a hydrogen atom; a halogen atom; or C_{1-6} alkyl in which the alkyl group is optionally substituted by (1) hydroxyl, (2) thiol, (3) amino, (4) C_{1-6} alkoxy, (5) C_{1-6} alkylthio, (6) C_{1-6} alkylsulfonyl, (7) mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, (8) aryloxy, (9) arylthio, (10) arylsulfonyl, (11) aryl, (12) a heterocyclic group, (13) a halogen atom, or (14) arylamino in which the amino

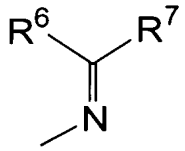
group is optionally substituted by C_{1-6} alkyl, and the aryl group is optionally substituted by a halogen, C_{1-6} alkyl, C_{1-6} alkoxy, or C_{1-6} alkylamino; or C_{2-6} alkenyl,

when R^{31} and R^{32} represent C_{1-6} alkyl or C_{2-6} alkenyl, the alkyl or the alkenyl groups together with the carbon atoms to which they are respectively attached may form an unsaturated five- to seven-membered carbocyclic ring, and

* represents a bond to -C(=O)-NH(-Z)

R^5 represents C_{5-7} cycloalkyl, aryl, or saturated or unsaturated five- or six-membered heterocyclic group, and the C_{5-7} cycloalkyl, aryl, or saturated or unsaturated five- or six-membered heterocyclic group represented by R^5 is optionally substituted by (I), (II), (III), (IV), (V), (VI), (VII), (VIII), (IX), (X), (XI), (XII), (XIII), (XIV), (XV), (XVI), (XVII), (XVIII), (XIX), (XX), (XXI), (XXII), (XXIII), (XXIV), (XXV), (XXVI), or (XXVII),

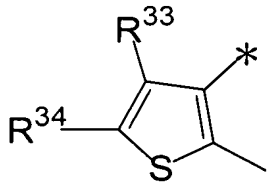
Z represents group (A):



(A)

wherein R^6 represents a hydrogen atom or C_{1-6} alkyl, R^7 represents optionally substituted aryl, optionally substituted aryl C_{1-6} alkyl, optionally substituted aryl C_{2-6} alkenyl, or optionally substituted saturated or unsaturated five- or six-membered heterocyclic group, and R^{17} represents a hydrogen atom.

Claim 54 (Previously Presented): The compound according to claim 50, wherein A represents formula (IIc):



(IIc)

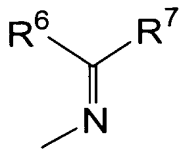
wherein R^{33} and R^{34}, which may be the same or different, represent a hydrogen atom; a halogen atom; or C_{1-6} alkyl in which the alkyl group is optionally substituted by (1) hydroxyl, (2) thiol, (3) amino, (4) C_{1-6} alkoxy, (5) C_{1-6} alkylthio, (6) C_{1-6} alkylsulfonyl, (7) mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, (8) aryloxy, (9) arylthio, (10) arylsulfonyl, (11) aryl, (12) a heterocyclic group, (13) a halogen atom, or (14) arylamino in which the amino group is optionally substituted by C_{1-6} alkyl, and the aryl group is optionally substituted by a halogen, C_{1-6} alkyl, C_{1-6} alkoxy, or C_{1-6} alkylamino; or C_{2-6} alkenyl,

when R^{33} and R^{34} represent C_{1-6} alkyl or C_{2-6} alkenyl, the alkyl or the alkenyl groups together with the carbon atoms to which they are respectively attached may form an unsaturated five- to seven-membered carbocyclic ring, and

* represents a bond to -C(=O)-NH(-Z)

R^5 represents C_{5-7} cycloalkyl, aryl, or saturated or unsaturated five- or six-membered heterocyclic group, and the C_{5-7} cycloalkyl, aryl, or saturated or unsaturated five- or six-membered heterocyclic group represented by R^5 is optionally substituted by (I), (II), (III), (IV), (V), (VI), (VII), (VIII), (IX), (X), (XI), (XII), (XIII), (XIV), (XV), (XVI), (XVII), (XVIII), (XIX), (XX), (XXI), (XXII), (XXIII), (XXIV), (XXV), (XXVI), or (XXVII),

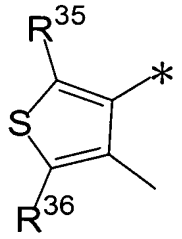
Z represents group (A):



(A)

wherein R^6 represents a hydrogen atom or C_{1-6} alkyl, R^7 represents optionally substituted aryl, optionally substituted aryl C_{1-6} alkyl, optionally substituted aryl C_{2-6} alkenyl, or optionally substituted saturated or unsaturated five- or six-membered heterocyclic group, and R^{17} represents a hydrogen atom.

Claim 55 (Currently Amended): The compound according to claim 50, wherein A represents formula (IId):



(IId)

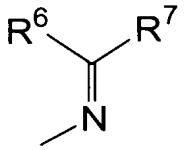
wherein R^{35} and R^{36}, which may be the same or different, represent a hydrogen atom; a halogen atom; or C_{1-6} alkyl in which the alkyl group is optionally substituted by (1) hydroxyl, (2) thiol, (3) amino, (4) C_{1-6} alkoxy, (5) C_{1-6} alkylthio, (6) C_{1-6} alkylsulfonyl, (7) mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, ~~(8) aryloxy,~~ (9) arylthio, (10) arylsulfonyl, (11) aryl, (12) a heterocyclic group, (13) a halogen atom, or (14) arylamino in which the amino group is optionally substituted by C_{1-6} alkyl, and the aryl group is optionally substituted by a halogen, C_{1-6} alkyl, C_{1-6} alkoxy, or C_{1-6} alkylamino; or C_{2-6} alkenyl, and

* represents a bond to -C(=O)-NH(-Z)

R^5 represents C_{5-7} cycloalkyl, aryl, or saturated or unsaturated five- or six-membered heterocyclic group, and the C_{5-7} cycloalkyl, aryl, or saturated or unsaturated five- or six-

membered heterocyclic group represented by R^5 is optionally substituted by (I), (II), (III), (IV), (V), (VI), (VII), (VIII), (IX), (X), (XI), (XII), (XIII), (XIV), (XV), (XVI), (XVII), (XVIII), (XIX), (XX), (XXI), (XXII), (XXIII), (XXIV), (XXV), (XXVI), or (XXVII),

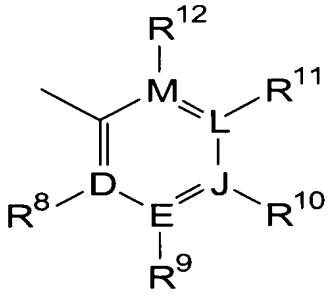
Z represents group (A):



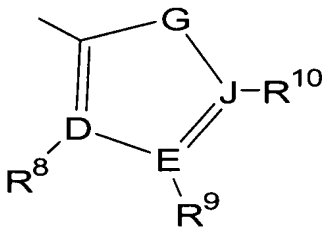
(A)

wherein R^6 represents a hydrogen atom or C_{1-6} alkyl, R^7 represents optionally substituted aryl, optionally substituted aryl C_{1-6} alkyl, optionally substituted aryl C_{2-6} alkenyl, or optionally substituted saturated or unsaturated five- or six-membered heterocyclic group, and R^{17} represents a hydrogen atom.

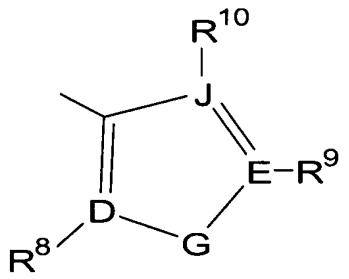
Claim 56 (Previously Presented): The compound according to claim 51, wherein R^5 represents formula (IIIa), formula (IIIb), or formula (IIIc)



(IIIa)



(IIIb)



(IIIc)

wherein

D, E, J, L, and M, which may be the same or different, represent a carbon or nitrogen atom,

G represents an oxygen or sulfur atom,

R^8, R^9, R^{10}, R^{11}, and R^{12}, which may be the same or different, represent

(I) a halogen atom;

(II) C_{1-6} alkyl optionally containing a substituent selected from the group consisting of (1) hydroxyl, (2) thiol, (3) amino, (4) C_{1-6} alkoxy, (5) C_{1-6} alkylthio, (6) C_{1-6} alkylsulfinyl, (7) C_{1-6} alkylsulfonyl, (8) mono- or di-C_{1-6} alkylamino, (8') amino substituted by a heterocyclic group optionally substituted by C_{1-6} alkyl, (9) C_{1-6} alkylcarbonyloxy, (10) C_{1-6} alkylcarbonylthio, (11) C_{1-6} alkylcarbonylamino, (12) aryloxy, (13) arylthio, (14) arylsulfinyl, (15) arylsulfonyl, (16) arylamino, (17) C_{1-6} alkyl- or aryl-sulfonylamino, (18) C_{1-6} alkyl- or aryl-ureido, (19) C_{1-6} alkoxy- or aryloxy-carbonylamino, (20) C_{1-6} alkylamino- or arylamino-carbonyloxy, (21) carboxyl, (22) nitro, (23) a heterocyclic group, (23') Het-S(=O)j- wherein the Het represents a heterocyclic group, j is 0, 1, or 2, and the Het is optionally substituted by alkyl optionally substituted by mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl, (24) cyano, and (25) a halogen atom,

wherein the alkyl moiety in (4) the C_{1-6} alkoxy group, (5) the C_{1-6} alkylthio group, (6) the C_{1-6} alkylsulfinyl group, and (7) the C_{1-6} alkylsulfonyl group is optionally substituted by a hydrogen atom; a halogen atom; C_{1-6} alkyl; C_{1-6} alkoxy; C_{1-6} alkylthio; mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms; aryloxy; arylthio; hydroxyl; carboxyl; $-S(=O)_2(-OH)$; C_{1-6} alkoxy- or aryloxy-carbonyl; C_{1-6} alkylcarbonyl; aryl; or a heterocyclic group optionally substituted by alkyl optionally substituted by mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxy, and

in (8) the mono- or di-C_{1-6} alkylamino group, the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by a halogen atom; C_{1-6} alkyl optionally substituted by hydroxyl, a halogen atom, aryl optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, or a heterocyclic group optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, and, when one or two alkyl groups on the amino group and the cyclic amino moiety are substituted by two C_{1-6} alkyl groups, they together may form C_{3-7} cycloalkyl; C_{1-6} alkoxy; C_{1-6} alkylthio; mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; arylamino in which the amino group is optionally substituted by C_{1-6} alkyl; mono- or di-C_{1-6} alkylcarbamoylmethyl in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; aryloxy;

arylthio; an oxygen atom (=O); hydroxyl; carboxyl; C_{1-6} alkoxy- or aryloxy-carbonyl; C_{1-6} alkylcarbonyl; aryl optionally substituted by a halogen atom or hydroxyl; or a heterocyclic group, and, when one carbon atom in the cyclic amino moiety is substituted by two C_{1-6} alkoxy groups which may be the same or different, the two alkoxy groups together may form group -O-$(CH_2)_p$-O- wherein p is an integer of 2 to 4, and the cyclic amino group may condense with a monocyclic or bicyclic aromatic carbocyclic ring or a monocyclic or bicyclic aromatic heterocyclic ring to represent a bicyclic or tricyclic heterocyclic group;

(III) C_{1-6} alkoxy optionally substituted by a halogen atom;

(IV) C_{1-6} alkylthio optionally substituted by a halogen atom;

(V) C_{3-7} cycloalkyl;

(VI) aryl;

(VII) aryloxy;

(VIII) C_{1-6} alkylcarbonylamino;

(VIX) C_{1-6} alkylcarbonyloxy;

(X) hydroxyl;

(XI) nitro;

(XII) cyano;

(XIII) amino;

(XIV) mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms;

(XV) arylamino;

(XVI) C_{1-6} alkyl- or aryl-sulfonylamino;

(XVII) C_{1-6} alkyl- or aryl-ureido;

(XVIII) C_{1-6} alkoxy- or aryloxy-carbonylamino;

(XIX) C_{1-6} alkylamino- or arylamino-carbonyloxy;

(XX) C_{1-6} alkoxy- or aryloxy-carbonyl;

(XXI) acyl;

(XXII) carboxyl;

(XXIII) carbamoyl;

(XXIV) mono- or di-alkylcarbamoyl;

(XXV) a heterocyclic group;

(XXVI) alkyl- or aryl-sulfonyl;

(XXVII) C_{2-6} alkenyloxy;

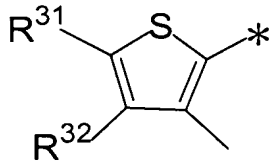
(XXVIII) C_{2-6} alkynyloxy; or

(XXIX) a hydrogen atom, and

when D, E, J, L, or M represents a nitrogen atom, R^8, R^9, R^{10}, R^{11}, and R^{12} each are absent, or otherwise may combine with a nitrogen atom to form N-oxide (N $\rightarrow$ O).

Claims 57 – 58 (Canceled):

Claim 59 (Previously Presented): The compound according to claim 50, wherein A represents formula (IIb)



(IIb)

wherein

(i) R^{31} and R^{32} represent a hydrogen atom,

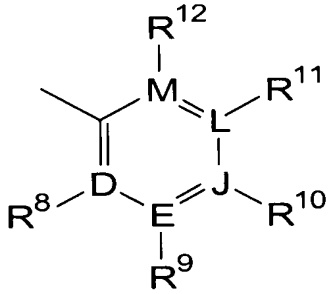
(ii) any one of R^{31} and R^{32} represents a hydrogen atom, and the other represents C_{1-6} alkyl optionally substituted by mono- or di-C_{1-6} alkylamino, which may form cyclic amino, or a halogen atom, and the cyclic amino group may contain 1 to 3 heteroatoms,

(iii) R^{31} and R^{32}, which may be the same or different, represent C_{1-6} alkyl optionally substituted by mono- or di-C_{1-6} alkylamino, which may form cyclic amino, or a halogen atom, and the cyclic amino group may contain 1 to 3 heteroatoms, or

(iv) R^{31} and R^{32} together with the carbon atoms to which they are respectively attached form an unsaturated five- to seven-membered carbocyclic ring, and

* represents a bond to -C(=O)-NH(-Z)

R^5 represents formula (IIIa)



(IIIa)

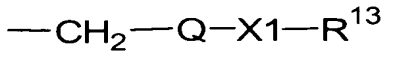
wherein

(i) D, E, J, L, and M represent a carbon atom, any one or two of R^8, R^9, R^{10}, R^{11}, and R^{12}, which may be the same or different, represent a halogen atom; hydroxymethyl; C_{1-6} alkyl optionally substituted by a halogen atom; or C_{1-6} alkoxy optionally substituted by a halogen atom, and the others represent a hydrogen atom,

(ii) any one or two of D, E, J, L, and M represent a nitrogen atom, and the others represent a carbon atom, any one or two of R^8, R^9, R^{10}, R^{11}, and R^{12} may be the same or different and represent a halogen atom; hydroxymethyl; C_{1-6} alkyl optionally substituted by a

halogen atom, or C_{1-6} alkoxy optionally substituted by a halogen atom, and the others represent a hydrogen atom,

(iii) D, E, J, L, and M represent a carbon atom, R^8, R^9, and R^{12} represent a hydrogen atom, any one of R^{10} and R^{11} represents a group of formula (IV)



(IV)

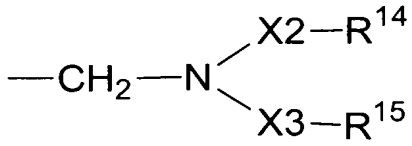
wherein

Q represents an oxygen atom, a sulfur atom, sulfinyl, or sulfonyl,

X1 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

R^{13} represents a hydrogen atom, a halogen atom, C_{1-6} alkyl, C_{1-6} alkoxy, C_{1-6} alkylthio, mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, aryloxy, arylthio, hydroxyl, carboxyl, -S(=O)$_2$(-OH), C_{1-6} alkoxy- or aryloxy-carbonyl, C_{1-6} alkylcarbonyl, aryl, or a heterocyclic group optionally substituted by alkyl optionally substituted by mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl;

or a group of formula (V)



(V)

wherein

X2 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

X3 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

R^{14} and R^{15}, which may be the same or different, represent a hydrogen atom; a halogen atom; C_{1-6} alkyl optionally substituted by hydroxyl, a halogen atom, aryl optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, a heterocyclic group optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, and, when one or two alkyl groups on the amino group and the cyclic amino moiety are substituted by two C_{1-6} alkyl groups, they together may form C_{3-7} cycloalkyl; C_{1-6} alkoxy; C_{1-6} alkylthio; mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; arylamino in which the amino group is optionally substituted by C_{1-6} alkyl; mono- or di-C_{1-6} alkylcarbamoylmethyl in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; aryloxy; arylthio; an oxygen atom (=O); hydroxyl; carboxyl; C_{1-6} alkoxy- or aryloxy-carbonyl; C_{1-6} alkylcarbonyl; aryl optionally substituted by a halogen atom or hydroxyl; or a heterocyclic group, provided that, when X2 represents a bond, R^{14} represents a hydrogen atom, or when X3 represents a bond, R^{15} represents a hydrogen atom, or

R^{14} and R^{15} together with a nitrogen atom to which they are respectively attached to may form a heterocyclic group that may contain 1 to 3 heteroatoms in

addition to the nitrogen atom, to which R^{14} and R^{15} are attached, and is optionally substituted by hydroxyl; C_{1-6} alkyl optionally substituted by hydroxyl, a halogen atom, aryl optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, or a heterocyclic group optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, and, when one or two alkyl groups on the amino group and the cyclic amino moiety are substituted by two C_{1-6} alkyl groups, they together may form C_{3-7} cycloalkyl; mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; a saturated or unsaturated five- or six-membered heterocyclic group; mono- or di-C_{1-6} alkylcarbamoylmethyl in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; phenyl; or an oxygen atom (=O), and, when one carbon atom in the cyclic amino moiety is substituted by two C_{1-6} alkoxy groups which may be the same or different, the two alkoxy groups together may form group -O-$(CH_2)_p$-O- wherein p is an integer of 2 to 4, and the cyclic amino group may condense with a monocyclic or bicyclic aromatic carbocyclic ring or a monocyclic or bicyclic aromatic heterocyclic ring to represent a bicyclic or tricyclic heterocyclic group;

and the other represents a hydrogen atom,

(iv) any one or two of D, E, J, L, and M represent a nitrogen atom, and the others represent a carbon atom, R^8, R^9, and R^{12} represent a hydrogen atom, and one of R^{10} and R^{11} represents a group of formula (IV)

$$—CH_2—Q—X1—R^{13} \qquad (IV)$$

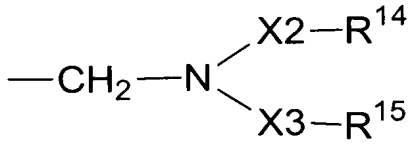
wherein

Q represents an oxygen atom, a sulfur atom, sulfinyl, or sulfonyl,

X1 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

R^{13} represents a hydrogen atom, a halogen atom, C_{1-6} alkyl, C_{1-6} alkoxy, C_{1-6} alkylthio, mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, aryloxy, arylthio, hydroxyl, carboxyl, -S(=O)$_2$(-OH), C_{1-6} alkoxy- or aryloxy-carbonyl, C_{1-6} alkylcarbonyl, aryl, or a heterocyclic group optionally substituted by alkyl optionally substituted by mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl;

or a group of formula (V)



(V)

wherein

X2 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

X3 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

R^{14} and R^{15}, which may be the same or different, represent a hydrogen atom; a halogen atom; C_{1-6} alkyl optionally substituted by hydroxyl, a halogen atom, aryl optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, a heterocyclic

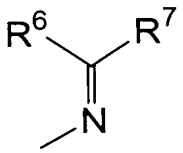
group optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, and, when one or two alkyl groups on the amino group and the cyclic amino moiety are substituted by two C_{1-6} alkyl groups, they together may form C_{3-7} cycloalkyl; C_{1-6} alkoxy; C_{1-6} alkylthio; mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; arylamino in which the amino group is optionally substituted by C_{1-6} alkyl; mono- or di-C_{1-6} alkylcarbamoylmethyl in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; aryloxy; arylthio; an oxygen atom (=O); hydroxyl; carboxyl; C_{1-6} alkoxy- or aryloxy-carbonyl; C_{1-6} alkylcarbonyl; aryl optionally substituted by a halogen atom or hydroxyl; or a heterocyclic group, provided that, when X2 represents a bond, R^{14} represents a hydrogen atom, or when X3 represents a bond, R^{15} represents a hydrogen atom, or

R^{14} and R^{15} together with a nitrogen atom to which they are respectively attached to may form a heterocyclic group that may contain 1 to 3 heteroatoms in addition to the nitrogen atom, to which R^{14} and R^{15} are attached, and is optionally substituted by hydroxyl; C_{1-6} alkyl optionally substituted by hydroxyl, a halogen atom, aryl optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, or a heterocyclic group optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, and, when one or two alkyl groups on the amino group and the cyclic amino moiety are substituted by two C_{1-6} alkyl groups, they together may form C_{3-7} cycloalkyl; mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino may form

cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; a saturated or unsaturated five- or six-membered heterocyclic group; mono- or di-C_{1-6} alkylcarbamoylmethyl in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; phenyl; or an oxygen atom (=O), and, when one carbon atom in the cyclic amino moiety is substituted by two C_{1-6} alkoxy groups which may be the same or different, the two alkoxy groups together may form group -O-$(CH_2)_p$-O- wherein p is an integer of 2 to 4, and the cyclic amino group may condense with a monocyclic or bicyclic aromatic carbocyclic ring or a monocyclic or bicyclic aromatic heterocyclic ring to represent a bicyclic or tricyclic heterocyclic group;

and the other represents a hydrogen atom,

Z represents group (A):



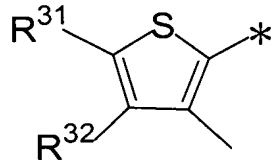
(A)

wherein

R^6 represents a hydrogen atom or C_{1-6} alkyl,

R^7 represents optionally substituted aryl, optionally substituted aryl C_{1-6} alkyl, optionally substituted aryl C_{2-6} alkenyl, or optionally substituted saturated or unsaturated five- or six-membered heterocyclic group.

Claim 60 (Previously Presented): The compound according to claim 50, wherein A represents formula (IIb)



(IIb)

wherein

(i) R^{31} and R^{32} represent a hydrogen atom,

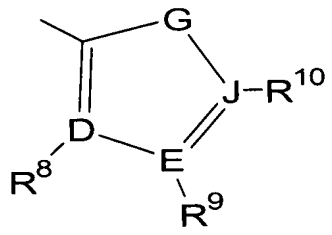
(ii) any one of R^{31} and R^{32} represents a hydrogen atom, and the other represents C_{1-6} alkyl optionally substituted by mono- or di-C_{1-6} alkylamino, which may form cyclic amino, or a halogen atom, and the cyclic amino group may contain 1 to 3 heteroatoms,

(iii) R^{31} and R^{32}, which may be the same or different, represent C_{1-6} alkyl optionally substituted by mono- or di-C_{1-6} alkylamino, which may form cyclic amino, or a halogen atom, and the cyclic amino group may contain 1 to 3 heteroatoms, or

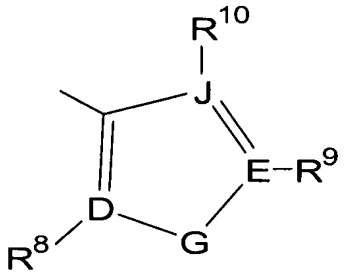
(iv) R^{31} and R^{32} together with the carbon atoms to which they are respectively attached form an unsaturated five- to seven-membered carbocyclic ring, and

* represents a bond to -C(=O)-NH(-Z)

R^5 represents formula (IIIb) or formula (IIIc)



(IIIb)



(IIIc)

wherein

(i) D, E, and J represent a carbon atom, G represents an oxygen or sulfur atom, any one or two of R^8, R^9, and R^{10}, which may be the same or different, represent a halogen atom; hydroxymethyl; C_{1-6} alkyl optionally substituted by a halogen atom; or C_{1-6} alkoxy optionally substituted by a halogen atom, and the others represent a hydrogen atom, or

(ii) D, E, and J represent a carbon atom, G represents an oxygen or sulfur atom, one of R^8, R^9, and R^{10} represents a group of formula (IV)

$$—CH_2—Q—X1—R^{13} \qquad (IV)$$

wherein

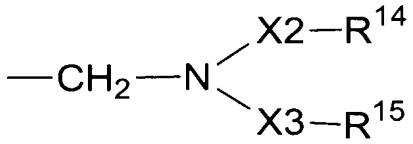
Q represents an oxygen atom, a sulfur atom, sulfinyl, or sulfonyl,

X1 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

R^{13} represents a hydrogen atom, a halogen atom, C_{1-6} alkyl, C_{1-6} alkoxy, C_{1-6} alkylthio, mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, aryloxy, arylthio, hydroxyl, carboxyl, -S(=O)$_2$(-OH), C_{1-6} alkoxy- or aryloxy-carbonyl, C_{1-6} alkylcarbonyl, aryl, or a heterocyclic group optionally substituted by alkyl optionally substituted by mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl

groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl;

or a group of formula (V)



(V)

wherein

X2 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

X3 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

R^{14} and R^{15}, which may be the same or different, represent a hydrogen atom; a halogen atom; C_{1-6} alkyl optionally substituted by hydroxyl, a halogen atom, aryl optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, a heterocyclic group optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, and, when one or two alkyl groups on the amino group and the cyclic amino moiety are substituted by two C_{1-6} alkyl groups, they together may form C_{3-7} cycloalkyl; C_{1-6} alkoxy; C_{1-6} alkylthio; mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; arylamino in which the amino group is optionally substituted by C_{1-6} alkyl; mono- or di-C_{1-6} alkylcarbamoylmethyl in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; aryloxy; arylthio; an oxygen atom (=O); hydroxyl; carboxyl; C_{1-6} alkoxy- or

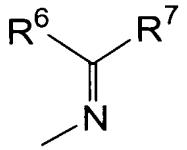
aryloxy-carbonyl; C_{1-6} alkylcarbonyl; aryl optionally substituted by a halogen atom or hydroxyl; or a heterocyclic group, provided that, when X2 represents a bond, R^{14} represents a hydrogen atom, or when X3 represents a bond, R^{15} represents a hydrogen atom, or

R^{14} and R^{15} together with a nitrogen atom to which they are respectively attached to may form a heterocyclic group that may contain 1 to 3 heteroatoms in addition to the nitrogen atom, to which R^{14} and R^{15} are attached, and is optionally substituted by hydroxyl; C_{1-6} alkyl optionally substituted by hydroxyl, a halogen atom, aryl optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, or a heterocyclic group optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, and, when one or two alkyl groups on the amino group and the cyclic amino moiety are substituted by two C_{1-6} alkyl groups, they together may form C_{3-7} cycloalkyl; mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; a saturated or unsaturated five- or six-membered heterocyclic group; mono- or di-C_{1-6} alkylcarbamoylmethyl in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; phenyl; or an oxygen atom (=O), and, when one carbon atom in the cyclic amino moiety is substituted by two C_{1-6} alkoxy groups which may be the same or different, the two alkoxy groups together may form group -O-$(CH_2)_p$-O- wherein p is an integer of 2 to 4, and the cyclic amino group may condense with a monocyclic or bicyclic aromatic

carbocyclic ring or a monocyclic or bicyclic aromatic heterocyclic ring to represent a bicyclic or tricyclic heterocyclic group;

and the others represent a hydrogen atom,

Z represents group (A):



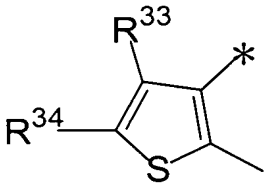
(A)

wherein

R^6 represents a hydrogen atom or C_{1-6} alkyl,

R^7 represents optionally substituted aryl, optionally substituted aryl C_{1-6} alkyl, optionally substituted aryl C_{2-6} alkenyl, or optionally substituted saturated or unsaturated five- or six-membered heterocyclic group.

Claim 61 (Previously Presented): The compound according to claim 50, wherein A represents formula (IIc)



(IIc)

wherein

(i) R^{33} and R^{34} represent a hydrogen atom,

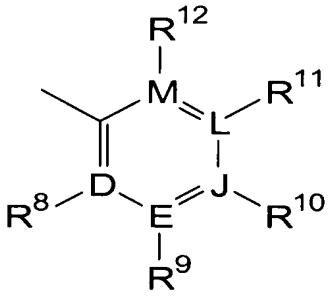
(ii) any one of R^{33} and R^{34} represents a hydrogen atom, and the other represents C_{1-6} alkyl optionally substituted by mono- or di-C_{1-6} alkylamino, which may form cyclic amino, or a halogen atom, and the cyclic amino group may contain 1 to 3 heteroatoms,

(iii) R^{33} and R^{34}, which may be the same or different, represent C_{1-6} alkyl optionally substituted by mono- or di-C_{1-6} alkylamino, which may form cyclic amino, or a halogen atom, and the cyclic amino group may contain 1 to 3 heteroatoms, or

(iv) R^{33} and R^{34} together with the carbon atoms to which they are respectively attached form an unsaturated five- to seven-membered carbocyclic ring, and

* represents a bond to -C(=O)-NH(-Z)

R^5 represents formula (IIIa)



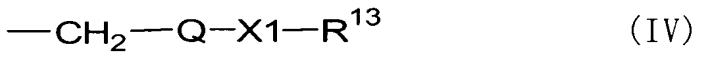
(IIIa)

wherein

(i) D, E, J, L, and M represent a carbon atom, any one or two of R^8, R^9, R^{10}, R^{11}, and R^{12}, which may be the same or different, represent a halogen atom; hydroxymethyl; C_{1-6} alkyl optionally substituted by a halogen atom; or C_{1-6} alkoxy optionally substituted by a halogen atom, and the others represent a hydrogen atom,

(ii) any one or two of D, E, J, L, and M represent a nitrogen atom, and the others represent a carbon atom, any one or two of R^8, R^9, R^{10}, R^{11}, and R^{12} may be the same or different and represent a halogen atom; hydroxymethyl; C_{1-6} alkyl optionally substituted by a halogen atom, or C_{1-6} alkoxy optionally substituted by a halogen atom, and the others represent a hydrogen atom,

(iii) D, E, J, L, and M represent a carbon atom, R^8, R^9, and R^{12} represent a hydrogen atom, any one of R^{10} and R^{11} represents a group of formula (IV)



(IV)

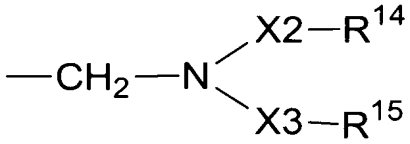
wherein

Q represents an oxygen atom, a sulfur atom, sulfinyl, or sulfonyl,

X1 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

R^{13} represents a hydrogen atom, a halogen atom, C_{1-6} alkyl, C_{1-6} alkoxy, C_{1-6} alkylthio, mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, aryloxy, arylthio, hydroxyl, carboxyl, -S(=O)$_2$(-OH), C_{1-6} alkoxy- or aryloxy-carbonyl, C_{1-6} alkylcarbonyl, aryl, or a heterocyclic group optionally substituted by alkyl optionally substituted by mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl;

or a group of formula (V)



(V)

wherein

X2 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

X3 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

R^{14} and R^{15}, which may be the same or different, represent a hydrogen atom; a halogen atom; C_{1-6} alkyl optionally substituted by hydroxyl, a halogen atom, aryl optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, a heterocyclic group optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, and, when one or two alkyl groups on the amino group and the cyclic amino moiety are substituted by two C_{1-6} alkyl groups, they together may form C_{3-7} cycloalkyl; C_{1-6} alkoxy; C_{1-6} alkylthio; mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; arylamino in which the amino group is optionally substituted by C_{1-6} alkyl; mono- or di-C_{1-6} alkylcarbamoylmethyl in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; aryloxy; arylthio; an oxygen atom (=O); hydroxyl; carboxyl; C_{1-6} alkoxy- or aryloxy-carbonyl; C_{1-6} alkylcarbonyl; aryl optionally substituted by a halogen atom or hydroxyl; or a heterocyclic group, provided that, when X2 represents a bond, R^{14} represents a hydrogen atom, or when X3 represents a bond, R^{15} represents a hydrogen atom, or

R^{14} and R^{15} together with a nitrogen atom to which they are respectively attached to may form a heterocyclic group that may contain 1 to 3 heteroatoms in addition to the nitrogen atom, to which R^{14} and R^{15} are attached, and is optionally substituted by hydroxyl; C_{1-6} alkyl optionally substituted by hydroxyl, a halogen atom, aryl optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, or a heterocyclic group optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6}

alkyloxy, and, when one or two alkyl groups on the amino group and the cyclic amino moiety are substituted by two C_{1-6} alkyl groups, they together may form C_{3-7} cycloalkyl; mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; a saturated or unsaturated five- or six-membered heterocyclic group; mono- or di-C_{1-6} alkylcarbamoylmethyl in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; phenyl; or an oxygen atom (=O), and, when one carbon atom in the cyclic amino moiety is substituted by two C_{1-6} alkoxy groups which may be the same or different, the two alkoxy groups together may form group -O-$(CH_2)_p$-O- wherein p is an integer of 2 to 4, and the cyclic amino group may condense with a monocyclic or bicyclic aromatic carbocyclic ring or a monocyclic or bicyclic aromatic heterocyclic ring to represent a bicyclic or tricyclic heterocyclic group;

and the other represents a hydrogen atom,

(iv) any one or two of D, E, J, L, and M represent a nitrogen atom, and the others represent a carbon atom, R^8, R^9, and R^{12} represent a hydrogen atom, and one of R^{10} and R^{11} represents a group of formula (IV)

$$—CH_2—Q—X1—R^{13} \qquad (IV)$$

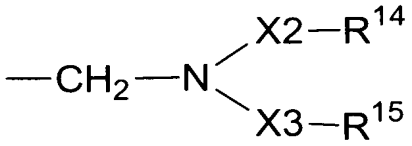
wherein

Q represents an oxygen atom, a sulfur atom, sulfinyl, or sulfonyl,

X1 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

R^{13} represents a hydrogen atom, a halogen atom, C_{1-6} alkyl, C_{1-6} alkoxy, C_{1-6} alkylthio, mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, aryloxy, arylthio, hydroxyl, carboxyl, -S(=O)$_2$(-OH), C_{1-6} alkoxy- or aryloxy-carbonyl, C_{1-6} alkylcarbonyl, aryl, or a heterocyclic group optionally substituted by alkyl optionally substituted by mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl;

or a group of formula (V)



(V)

wherein

X2 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

X3 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

R^{14} and R^{15}, which may be the same or different, represent a hydrogen atom; a halogen atom; C_{1-6} alkyl optionally substituted by hydroxyl, a halogen atom, aryl optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, a heterocyclic group optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, and, when one or two alkyl groups on the amino group and the cyclic amino moiety are substituted by two C_{1-6} alkyl groups, they together may form C_{3-7} cycloalkyl; C_{1-6} alkoxy; C_{1-6} alkylthio; mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino

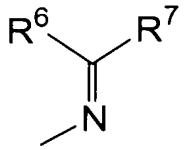
group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; arylamino in which the amino group is optionally substituted by C_{1-6} alkyl; mono- or di-C_{1-6} alkylcarbamoylmethyl in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; aryloxy; arylthio; an oxygen atom (=O); hydroxyl; carboxyl; C_{1-6} alkoxy- or aryloxy-carbonyl; C_{1-6} alkylcarbonyl; aryl optionally substituted by a halogen atom or hydroxyl; or a heterocyclic group, provided that, when X2 represents a bond, R^{14} represents a hydrogen atom, or when X3 represents a bond, R^{15} represents a hydrogen atom, or

R^{14} and R^{15} together with a nitrogen atom to which they are respectively attached to may form a heterocyclic group that may contain 1 to 3 heteroatoms in addition to the nitrogen atom, to which R^{14} and R^{15} are attached, and is optionally substituted by hydroxyl; C_{1-6} alkyl optionally substituted by hydroxyl, a halogen atom, aryl optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, or a heterocyclic group optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, and, when one or two alkyl groups on the amino group and the cyclic amino moiety are substituted by two C_{1-6} alkyl groups, they together may form C_{3-7} cycloalkyl; mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; a saturated or unsaturated five- or six-membered heterocyclic group; mono- or di-C_{1-6} alkylcarbamoylmethyl in which the di-C_{1-6} alkylamino group may form cyclic amino

optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; phenyl; or an oxygen atom (=O), and, when one carbon atom in the cyclic amino moiety is substituted by two C_{1-6} alkoxy groups which may be the same or different, the two alkoxy groups together may form group $-O-(CH_2)_p-O-$ wherein p is an integer of 2 to 4, and the cyclic amino group may condense with a monocyclic or bicyclic aromatic carbocyclic ring or a monocyclic or bicyclic aromatic heterocyclic ring to represent a bicyclic or tricyclic heterocyclic group;

and the other represents a hydrogen atom,

Z represents group (A):



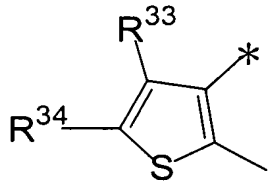
(A)

wherein

R^6 represents a hydrogen atom or C_{1-6} alkyl,

R^7 represents optionally substituted aryl, optionally substituted aryl C_{1-6} alkyl, optionally substituted aryl C_{2-6} alkenyl, or optionally substituted saturated or unsaturated five- or six-membered heterocyclic group.

Claim 62 (Previously Presented): The compound according to claim 50, wherein A represents formula (IIc)



(IIc)

wherein

(i) R^{33} and R^{34} represent a hydrogen atom,

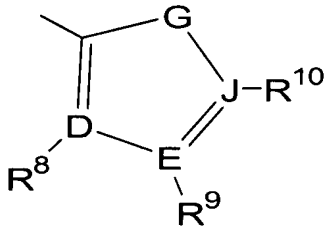
(ii) any one of R^{33} and R^{34} represents a hydrogen atom, and the other represents C_{1-6} alkyl optionally substituted by mono- or di-C_{1-6} alkylamino, which may form cyclic amino, or a halogen atom, and the cyclic amino group may contain 1 to 3 heteroatoms,

(iii) R^{33} and R^{34}, which may be the same or different, represent C_{1-6} alkyl optionally substituted by mono- or di-C_{1-6} alkylamino, which may form cyclic amino, or a halogen atom, and the cyclic amino group may contain 1 to 3 heteroatoms, or

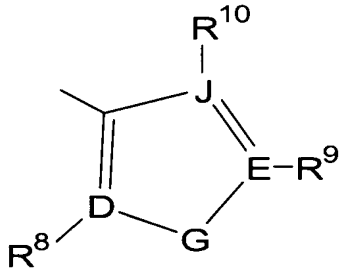
(iv) R^{33} and R^{34} together with the carbon atoms to which they are respectively attached form an unsaturated five- to seven-membered carbocyclic ring, and

* represents a bond to -C(=O)-NH(-Z)

R^5 represents formula (IIIb) or formula (IIIc)



(IIIb)



(IIIc)

wherein

(i) D, E, and J represent a carbon atom, G represents an oxygen or sulfur atom, any one or two of R^8, R^9, and R^{10}, which may be the same or different, represent a halogen atom; hydroxymethyl; C_{1-6} alkyl optionally substituted by a halogen atom; or C_{1-6} alkoxy optionally substituted by a halogen atom, and the others represent a hydrogen atom, or

(ii) D, E, and J represent a carbon atom, G represents an oxygen or sulfur atom, one of R^8, R^9, and R^{10} represents a group of formula (IV)

$$—CH_2—Q—X1—R^{13} \qquad (IV)$$

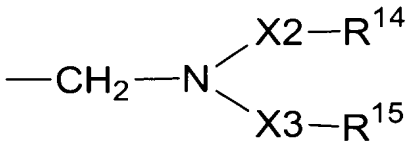
wherein

Q represents an oxygen atom, a sulfur atom, sulfinyl, or sulfonyl,

X1 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

R^{13} represents a hydrogen atom, a halogen atom, C_{1-6} alkyl, C_{1-6} alkoxy, C_{1-6} alkylthio, mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, aryloxy, arylthio, hydroxyl, carboxyl, -S(=O)$_2$(-OH), C_{1-6} alkoxy- or aryloxy-carbonyl, C_{1-6} alkylcarbonyl, aryl, or a heterocyclic group optionally substituted by alkyl optionally substituted by mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl;

or a group of formula (V)



(V)

wherein

X2 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

X3 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

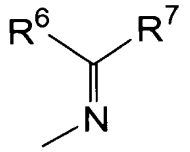
R^{14} and R^{15}, which may be the same or different, represent a hydrogen atom; a halogen atom; C_{1-6} alkyl optionally substituted by hydroxyl, a halogen atom, aryl optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, a heterocyclic group optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, and, when one or two alkyl groups on the amino group and the cyclic amino moiety are substituted by two C_{1-6} alkyl groups, they together may form C_{3-7} cycloalkyl; C_{1-6} alkoxy; C_{1-6} alkylthio; mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; arylamino in which the amino group is optionally substituted by C_{1-6} alkyl; mono- or di-C_{1-6} alkylcarbamoylmethyl in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; aryloxy; arylthio; an oxygen atom (=O); hydroxyl; carboxyl; C_{1-6} alkoxy- or aryloxy-carbonyl; C_{1-6} alkylcarbonyl; aryl optionally substituted by a halogen atom or hydroxyl; or a heterocyclic group, provided that, when X2 represents a bond, R^{14}

represents a hydrogen atom, or when X3 represents a bond, R^{15} represents a hydrogen atom, or

R^{14} and R^{15} together with a nitrogen atom to which they are respectively attached to may form a heterocyclic group that may contain 1 to 3 heteroatoms in addition to the nitrogen atom, to which R^{14} and R^{15} are attached, and is optionally substituted by hydroxyl; C_{1-6} alkyl optionally substituted by hydroxyl, a halogen atom, aryl optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, or a heterocyclic group optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, and, when one or two alkyl groups on the amino group and the cyclic amino moiety are substituted by two C_{1-6} alkyl groups, they together may form C_{3-7} cycloalkyl; mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; a saturated or unsaturated five- or six-membered heterocyclic group; mono- or di-C_{1-6} alkylcarbamoylmethyl in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; phenyl; or an oxygen atom (=O), and, when one carbon atom in the cyclic amino moiety is substituted by two C_{1-6} alkoxy groups which may be the same or different, the two alkoxy groups together may form group -O-$(CH_2)_p$-O- wherein p is an integer of 2 to 4, and the cyclic amino group may condense with a monocyclic or bicyclic aromatic carbocyclic ring or a monocyclic or bicyclic aromatic heterocyclic ring to represent a bicyclic or tricyclic heterocyclic group;

and the others represent a hydrogen atom,

Z represents group (A):



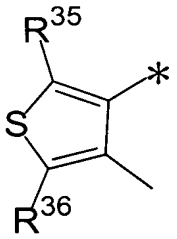
(A)

wherein

R^6 represents a hydrogen atom or C_{1-6} alkyl,

R^7 represents optionally substituted aryl, optionally substituted aryl C_{1-6} alkyl, optionally substituted aryl C_{2-6} alkenyl, or optionally substituted saturated or unsaturated five- or six-membered heterocyclic group.

Claim 63 (Previously Presented): The compound according to claim 50, wherein A represents formula (IId)

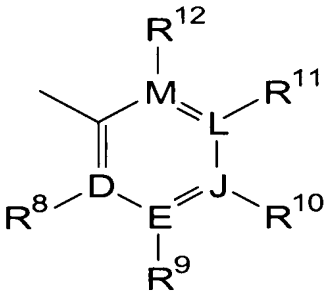


(IId)

wherein R^{35} and R^{36} represent a hydrogen atom, or any one of R^{35} and R^{36} represents a hydrogen atom and the other represents C_{1-6} alkyl optionally substituted by a halogen atom, and

* represents a bond to -C(=O)-NH(-Z)

R^5 represents formula (IIIa)



(IIIa)

wherein

(i) D, E, J, L, and M represent a carbon atom, any one or two of R^8, R^9, R^{10}, R^{11}, and R^{12}, which may be the same or different, represent a halogen atom; hydroxymethyl; C_{1-6} alkyl optionally substituted by a halogen atom; or C_{1-6} alkoxy optionally substituted by a halogen atom, and the others represent a hydrogen atom,

(ii) any one or two of D, E, J, L, and M represent a nitrogen atom, and the others represent a carbon atom, any one or two of R^8, R^9, R^{10}, R^{11}, and R^{12} may be the same or different and represent a halogen atom; hydroxymethyl; C_{1-6} alkyl optionally substituted by a halogen atom, or C_{1-6} alkoxy optionally substituted by a halogen atom, and the others represent a hydrogen atom,

(iii) D, E, J, L, and M represent a carbon atom, R^8, R^9, and R^{12} represent a hydrogen atom, any one of R^{10} and R^{11} represents a group of formula (IV)

$$—CH_2—Q—X1—R^{13} \qquad (IV)$$

wherein

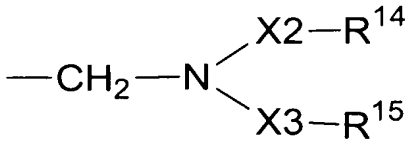
Q represents an oxygen atom, a sulfur atom, sulfinyl, or sulfonyl,

X1 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

R^{13} represents a hydrogen atom, a halogen atom, C_{1-6} alkyl, C_{1-6} alkoxy, C_{1-6} alkylthio, mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may

form cyclic amino optionally containing 1 to 3 heteroatoms, aryloxy, arylthio, hydroxyl, carboxyl, -S(=O)$_2$(-OH), C_{1-6} alkoxy- or aryloxy-carbonyl, C_{1-6} alkylcarbonyl, aryl, or a heterocyclic group optionally substituted by alkyl optionally substituted by mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl;

or a group of formula (V)



(V)

wherein

X2 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

X3 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

R^{14} and R^{15}, which may be the same or different, represent a hydrogen atom; a halogen atom; C_{1-6} alkyl optionally substituted by hydroxyl, a halogen atom, aryl optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, a heterocyclic group optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, and, when one or two alkyl groups on the amino group and the cyclic amino moiety are substituted by two C_{1-6} alkyl groups, they together may form C_{3-7} cycloalkyl; C_{1-6} alkoxy; C_{1-6} alkylthio; mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or

two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; arylamino in which the amino group is optionally substituted by C_{1-6} alkyl; mono- or di-C_{1-6} alkylcarbamoylmethyl in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; aryloxy; arylthio; an oxygen atom (=O); hydroxyl; carboxyl; C_{1-6} alkoxy- or aryloxy-carbonyl; C_{1-6} alkylcarbonyl; aryl optionally substituted by a halogen atom or hydroxyl; or a heterocyclic group, provided that, when X2 represents a bond, R^{14} represents a hydrogen atom, or when X3 represents a bond, R^{15} represents a hydrogen atom, or

R^{14} and R^{15} together with a nitrogen atom to which they are respectively attached to may form a heterocyclic group that may contain 1 to 3 heteroatoms in addition to the nitrogen atom, to which R^{14} and R^{15} are attached, and is optionally substituted by hydroxyl; C_{1-6} alkyl optionally substituted by hydroxyl, a halogen atom, aryl optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, or a heterocyclic group optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, and, when one or two alkyl groups on the amino group and the cyclic amino moiety are substituted by two C_{1-6} alkyl groups, they together may form C_{3-7} cycloalkyl; mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; a saturated or unsaturated five- or six-membered heterocyclic group; mono- or di-C_{1-6} alkylcarbamoylmethyl in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino

group and the cyclic amino moiety are optionally substituted by hydroxyl; phenyl; or an oxygen atom (=O), and, when one carbon atom in the cyclic amino moiety is substituted by two C_{1-6} alkoxy groups which may be the same or different, the two alkoxy groups together may form group $-O-(CH_2)_p-O-$ wherein p is an integer of 2 to 4, and the cyclic amino group may condense with a monocyclic or bicyclic aromatic carbocyclic ring or a monocyclic or bicyclic aromatic heterocyclic ring to represent a bicyclic or tricyclic heterocyclic group;

and the other represents a hydrogen atom, or

(iv) any one or two of D, E, J, L, and M represent a nitrogen atom, and the others represent a carbon atom, R^8, R^9, and R^{12} represent a hydrogen atom, and one of R^{10} and R^{11} represents a group of formula (IV)

$$—CH_2—Q—X1—R^{13} \qquad (IV)$$

wherein

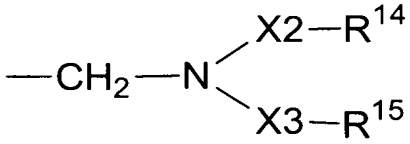
Q represents an oxygen atom, a sulfur atom, sulfinyl, or sulfonyl,

X1 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

R^{13} represents a hydrogen atom, a halogen atom, C_{1-6} alkyl, C_{1-6} alkoxy, C_{1-6} alkylthio, mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, aryloxy, arylthio, hydroxyl, carboxyl, $-S(=O)_2(-OH)$, C_{1-6} alkoxy- or aryloxy-carbonyl, C_{1-6} alkylcarbonyl, aryl, or a heterocyclic group optionally substituted by alkyl optionally substituted by mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl

groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl;

or a group of formula (V)



(V)

wherein

X2 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

X3 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

R^{14} and R^{15}, which may be the same or different, represent a hydrogen atom; a halogen atom; C_{1-6} alkyl optionally substituted by hydroxyl, a halogen atom, aryl optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, a heterocyclic group optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, and, when one or two alkyl groups on the amino group and the cyclic amino moiety are substituted by two C_{1-6} alkyl groups, they together may form C_{3-7} cycloalkyl; C_{1-6} alkoxy; C_{1-6} alkylthio; mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; arylamino in which the amino group is optionally substituted by C_{1-6} alkyl; mono- or di-C_{1-6} alkylcarbamoylmethyl in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by

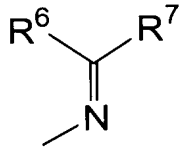
hydroxyl; aryloxy; arylthio; an oxygen atom (=O); hydroxyl; carboxyl; C_{1-6} alkoxy- or aryloxy-carbonyl; C_{1-6} alkylcarbonyl; aryl optionally substituted by a halogen atom or hydroxyl; or a heterocyclic group, provided that, when X2 represents a bond, R^{14} represents a hydrogen atom, or when X3 represents a bond, R^{15} represents a hydrogen atom, or

R^{14} and R^{15} together with a nitrogen atom to which they are respectively attached to may form a heterocyclic group that may contain 1 to 3 heteroatoms in addition to the nitrogen atom, to which R^{14} and R^{15} are attached, and is optionally substituted by hydroxyl; C_{1-6} alkyl optionally substituted by hydroxyl, a halogen atom, aryl optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, or a heterocyclic group optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, and, when one or two alkyl groups on the amino group and the cyclic amino moiety are substituted by two C_{1-6} alkyl groups, they together may form C_{3-7} cycloalkyl; mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; a saturated or unsaturated five- or six-membered heterocyclic group; mono- or di-C_{1-6} alkylcarbamoylmethyl in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; phenyl; or an oxygen atom (=O), and, when one carbon atom in the cyclic amino moiety is substituted by two C_{1-6} alkoxy groups which may be the same or different, the two alkoxy groups together may form group -O-$(CH_2)_p$-O- wherein p is an integer of 2 to 4, and the cyclic amino group may condense with a monocyclic or bicyclic aromatic

carbocyclic ring or a monocyclic or bicyclic aromatic heterocyclic ring to represent a bicyclic or tricyclic heterocyclic group;

and the other represents a hydrogen atom,

Z represents group (A):



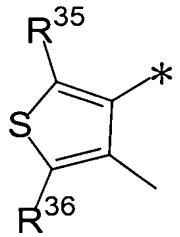
(A)

wherein

R^6 represents a hydrogen atom or C_{1-6} alkyl,

R^7 represents optionally substituted aryl, optionally substituted aryl C_{1-6} alkyl, optionally substituted aryl C_{2-6} alkenyl, or optionally substituted saturated or unsaturated five- or six-membered heterocyclic group.

Claim 64 (Previously Presented): The compound according to claim 50, wherein A represents formula (IId)

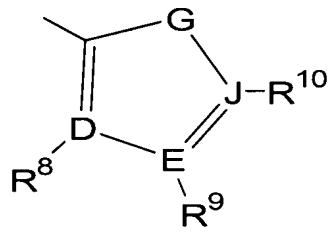


(IId)

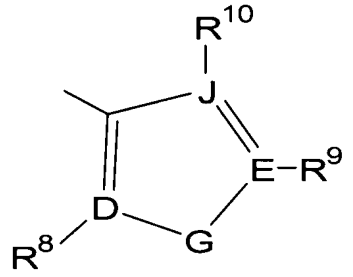
wherein R^{35} and R^{36} represent a hydrogen atom, or any one of R^{35} and R^{36} represents a hydrogen atom and the other represents C_{1-6} alkyl optionally substituted by a halogen atom, and

* represents a bond to -C(=O)-NH(-Z)

R^5 represents formula (IIIb) or formula (IIIc)



(IIIb)



(IIIc)

wherein

(i) D, E, and J represent a carbon atom, G represents an oxygen or sulfur atom, any one or two of R^8, R^9, and R^{10}, which may be the same or different, represent a halogen atom; hydroxymethyl; C_{1-6} alkyl optionally substituted by a halogen atom; or C_{1-6} alkoxy optionally substituted by a halogen atom, and the others represent a hydrogen atom,

(ii) D, E, and J represent a carbon atom, G represents an oxygen or sulfur atom, one of R^8, R^9, and R^{10} represents a group of formula (IV)

$$—CH_2—Q—X1—R^{13} \qquad (IV)$$

wherein

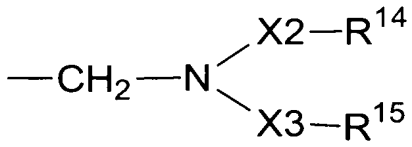
Q represents an oxygen atom, a sulfur atom, sulfinyl, or sulfonyl,

X1 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

R^{13} represents a hydrogen atom, a halogen atom, C_{1-6} alkyl, C_{1-6} alkoxy, C_{1-6} alkylthio, mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may

form cyclic amino optionally containing 1 to 3 heteroatoms, aryloxy, arylthio, hydroxyl, carboxyl, -S(=O)$_2$(-OH), C_{1-6} alkoxy- or aryloxy-carbonyl, C_{1-6} alkylcarbonyl, aryl, or a heterocyclic group optionally substituted by alkyl optionally substituted by mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl;

or a group of formula (V)



(V)

wherein

X2 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

X3 represents a bond or straight chain or branched chain alkylene having 1 to 5 carbon atoms,

R^{14} and R^{15}, which may be the same or different, represent a hydrogen atom; a halogen atom; C_{1-6} alkyl optionally substituted by hydroxyl, a halogen atom, aryl optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, a heterocyclic group optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, and, when one or two alkyl groups on the amino group and the cyclic amino moiety are substituted by two C_{1-6} alkyl groups, they together may form C_{3-7} cycloalkyl; C_{1-6} alkoxy; C_{1-6} alkylthio; mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally

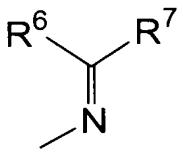
substituted by hydroxyl; arylamino in which the amino group is optionally substituted by C_{1-6} alkyl; mono- or di-C_{1-6} alkylcarbamoylmethyl in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; aryloxy; arylthio; an oxygen atom (=O); hydroxyl; carboxyl; C_{1-6} alkoxy- or aryloxy-carbonyl; C_{1-6} alkylcarbonyl; aryl optionally substituted by a halogen atom or hydroxyl; or a heterocyclic group, provided that, when X2 represents a bond, R^{14} represents a hydrogen atom, or when X3 represents a bond, R^{15} represents a hydrogen atom, or

R^{14} and R^{15} together with a nitrogen atom to which they are respectively attached to may form a heterocyclic group that may contain 1 to 3 heteroatoms in addition to the nitrogen atom, to which R^{14} and R^{15} are attached, and is optionally substituted by hydroxyl; C_{1-6} alkyl optionally substituted by hydroxyl, a halogen atom, aryl optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, or a heterocyclic group optionally substituted by a halogen atom, C_{1-6} alkyl, or C_{1-6} alkyloxy, and, when one or two alkyl groups on the amino group and the cyclic amino moiety are substituted by two C_{1-6} alkyl groups, they together may form C_{3-7} cycloalkyl; mono- or di-C_{1-6} alkylamino in which the di-C_{1-6} alkylamino may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; a saturated or unsaturated five- or six-membered heterocyclic group; mono- or di-C_{1-6} alkylcarbamoylmethyl in which the di-C_{1-6} alkylamino group may form cyclic amino optionally containing 1 to 3 heteroatoms, and one or two alkyl groups on the amino group and the cyclic amino moiety are optionally substituted by hydroxyl; phenyl; or

an oxygen atom (=O), and, when one carbon atom in the cyclic amino moiety is substituted by two C_{1-6} alkoxy groups which may be the same or different, the two alkoxy groups together may form group $-O-(CH_2)_p-O-$ wherein p is an integer of 2 to 4, and the cyclic amino group may condense with a monocyclic or bicyclic aromatic carbocyclic ring or a monocyclic or bicyclic aromatic heterocyclic ring to represent a bicyclic or tricyclic heterocyclic group;

and the others represent a hydrogen atom,

Z represents group (A):



(A)

wherein

R^6 represents a hydrogen atom or C_{1-6} alkyl,

R^7 represents optionally substituted aryl, optionally substituted aryl C_{1-6} alkyl, optionally substituted aryl C_{2-6} alkenyl, or optionally substituted saturated or unsaturated five- or six-membered heterocyclic group.

Claim 65 (Canceled).

Claim 66 (Previously Presented): A pharmaceutical composition comprising as an active ingredient a compound according to claim 50 or a pharmaceutically acceptable salt thereof.

Claims 67-96 (Canceled).